IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method of making a photonic via comprising:

making a hole in a substrate, wherein the hole extends from one side of the substrate through the substrate to an opposite side of the substrate;

~~depositing a cladding material into the hole, the cladding material substantially lining an interior surface of the hole; and~~

~~depositing an optical core material into the hole~~

heating the substrate to expand the hole;

inserting a fiber optic into the hole;

cooling the substrate to contract the hole to hold the fiber optic in place; and

polishing the substrate.

2. (currently amended) The method of claim 1 further comprising:

forming a lens on top of the ~~optical core material~~ fiber optic.

3. (currently amended) The method of claim 2 further comprising:

depositing a polymer on top of the ~~optical core material~~ fiber optic; and

curing the polymer to form a lens.

4-15 (cancelled).

16. (previously presented) The method of claim 1, wherein making the hole in the substrate is achieved by etching.

17-25 (cancelled).

26 (new). The method of claim 1 wherein the heating temperature is dependent on the coefficient of thermal expansion of the substrate.

27 (new). The method of claim 26 further comprising heating the substrate to approximately 150-200 degrees C.

28 (new). The method of claim 1, further comprising:

forming a waveguide having an angled surface to redirect light in a direction substantially perpendicular to the fiber optic.

29 (new). The method of claim 28, wherein forming the waveguide comprises:

depositing a cladding layer over a surface of the substrate;

etching to align the cladding layer with one side of the hole on the substrate;

depositing a layer of optical material over the cladding and the substrate wherein a difference in height between the cladding and the substrate causes the optical material to form a surface having approximately a 45 degree angle over the hole.

30 (new). The method as recited in claim 29 wherein the optical material comprises glass.

31 (new). The method as recited in claim 28, further comprising:

depositing a cladding layer on the substrate, wherein the hole extends through the cladding layer;

depositing a layer of optical material over the cladding;

depositing a mask on the optical material with an opening over the hole; and

etching to form at least one angled surface in the optical material.

32 (new). The method as recited in claim 31further comprising:

etching to form two angled surfaces in the optical material.